Discussion 3

1. Prove that every NFA can be converted to an equivalent one where the initial state has no incoming transitions.
2. Consider the regular expression \((00 \cup 11)^* (101)^*\)

Find two strings over \{0, 1\} of length 10 that are in the language described by this regular expression.

Find two strings over \{0, 1\} of length 10 that are not in the language described by this regular expression.

Convert this regular expression to an NFA recognizing the language described by the regular expression.